STRAINED SEMICONDUCTOR BY FULL WAFER BONDING

Abstract of the Disclosure

One aspect of this disclosure relates to a method for forming a wafer with a strained semiconductor. In various embodiments of the method, a predetermined contour is formed in one of a semiconductor membrane and a substrate wafer. The semiconductor membrane is bonded to the substrate wafer and the predetermined contour is straightened to induce a predetermined strain in the semiconductor membrane. In various embodiments, a substrate wafer is flexed into a flexed position, a portion of the substrate wafer is bonded to a semiconductor layer when the substrate wafer is in the flexed position, and the substrate wafer is relaxed to induce a predetermined strain in the semiconductor layer. Other aspects and embodiments are provided herein.